



**Noxious Weed Management Plan
for the
Westside Solar Project**

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List of Abbreviations and Acronyms

Applicant	Westside Solar, LLC
E & E	Ecology and Environment, Inc.
Project	Westside Solar Project
PV	photovoltaic
RCW	Revised Code of Washington
SEPA	Washington State Environmental Policy Act

1 Introduction and Purpose

Westside Solar, LLC (the Applicant) is proposing to construct and operate the Westside Solar Project (Project), a photovoltaic (PV) solar power production facility. The Project is located across six parcels (Kittitas County Tax Parcel Numbers 19440, 19441, 19442, 10577, 10579, and 10580) totaling approximately 46 acres. This Noxious Weed Management Plan describes noxious and invasive weed control measures that will be implemented in all areas of the Westside Solar Project site during and after construction, including both temporary disturbance areas and permanent aboveground facilities. The purpose of these efforts is to restore the soil and vegetation in temporarily disturbed areas of the Project site to pre-disturbance conditions or better.

The goal of this plan is to provide the methods and standards to:

Control existing noxious weed populations identified onsite before construction;

- Avoid or minimize impacts on native soils through erosion and loss or degradation of topsoil; and
- Avoid or control the introduction or spread of noxious weeds in or immediately adjacent to the Project site (including along Project access roads).

A noxious weed is defined in Revised Code of Washington (RCW) 17.10 as “...a plant that when established is highly destructive, competitive, or difficult to control by agricultural or chemical practices” (Washington State Legislation 1995). For the purposes of this report, the goals of controlling weed populations will be limited to noxious weeds, as defined above.

This plan has been developed using the policies and framework outlined by both the Washington State and Kittitas County Noxious Weed Control Boards. Per the Kittitas County Board (2019), “It shall be the responsibility of every landowner, in accordance with RCW 17.10.140 and RCW 17.10.150, to eradicate all Class A noxious weeds and to control and prevent the spread of Class B and Class C noxious weeds from their property.” All noxious weed control treatments should be implemented with topsoil conservation and revegetation as a holistic solution for better long-term control of noxious weed populations.

2 Site Description

The Project site is located adjacent to Westside Road near the town of Cle Elum, Kittitas County, Washington, in the Southwest ¼ of Section 33, Township 20 North, Range 15 East of the Willamette Meridian (Figure 1). The Project is situated within six parcels that total approximately 46 acres. The Project site is bounded by Westside Road to the south and Iron Horse Trail and North Milwaukee Avenue to the north. Iron Horse State Park is located east of the Project site. The parcels are zoned for Rural Residential Land Use - Agriculture 5, as defined in Kittitas County Code Chapter 17.28A. The Project site is surrounded by rural residential and commercial properties.

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The Project site is primarily composed of unimproved pasture. Herbaceous and riparian wetlands fringe the pasture to the south. Ponderosa pine forest and shrub-steppe vegetation types are concentrated along the northern border of the Project site. Refer to the Vegetation and Habitat Monitoring Trip Report included in the Washington State Environmental Policy Act (SEPA) Checklist for additional information on the habitat classifications for the Project site.

3 Noxious Weed Inventory

On June 3, 2019, an Ecology and Environment, Inc. (E & E) environmental scientist and an E & E biologist visited the Project site to conduct a noxious weed survey, including identification of species and relative density of Kittitas County-designated noxious weeds. Table 1 shows the noxious weed species identified by the E & E field team within the Project site. Table 1 lists the species from most to least abundant throughout the Project site and provides an approximate percent cover for each. More information on survey methods can be found within the Vegetation and Habitat Monitoring Trip Report, previously submitted with the SEPA Checklist.

Table 1 Noxious Weed Species Identified within the Project Site

Common Name	Scientific Name	Status in Washington State ¹	Approximate Percent Cover ²
Spotted knapweed	<i>Centaurea stoebe</i>	Class B	20% ³
Russian knapweed	<i>Acroptilon repens</i>	Class B	
Sulfur cinquefoil	<i>Potentilla recta</i>	Class B	10%
Oxeye daisy	<i>Leucanthemum vulgare</i>	Class C	5%
Canada thistle	<i>Cirsium arvense</i>	Class C	5%
Dalmatian toadflax	<i>Linaria dalmatica</i>	Class B	3%
Reed canary grass	<i>Phalaris arundinacea</i>	Non-native	3%
Absinth wormwood	<i>Artemisia absinthium</i>	Class C	<1%
Field bindweed	<i>Convolvulus arvensis</i>	Class C	<1%
Yellow salsify	<i>Tragopogon dubius</i>	Non-native	<1%
Bulbous bluegrass	<i>Poa bulbosa</i>	Non-native	<1%

Notes:

¹ Class A Weeds: Non-native species whose distribution in Washington is still limited. Preventing new infestations and eradicating existing infestations are the highest priority. Eradication of all Class A plants is required by law.

Class B Weeds: Non-native species presently limited to portions of the state. Species are designated for control in regions where they are not yet widespread. Preventing new infestations in these areas is a high priority.

Class C Weeds: Noxious weeds that are already widespread in Washington or are of special interest to the state's agricultural industry. The Class C status allows counties to enforce control, if locally desired.

² Percent cover at the time of the field survey. These are not absolute percentages and should be interpreted as relative values to provide Project site-wide context.

³ Combined percent cover of knapweed species.

4 Noxious Weed Management

The Applicant's primary objective in noxious weed management, as per RCW 17.10.140, will be to prevent the introduction of new weed populations and the spread of existing noxious weed populations identified during the Vegetation and Habitat Monitoring Trip. Noxious and invasive weed control should begin prior to ground disturbance and continue through construction and during the operation and maintenance phases of the Project. The Applicant shall implement measures to prevent or control the introduction or spread of weed seeds and plant parts during the construction or operations and maintenance phases of the Project. Efforts should focus on species that are designated as noxious weeds by the Kittitas County Noxious Weed Control Board (2017).

The prevention and control measures described below will be implemented in all areas of the Westside Solar Project site during and after construction, including both temporary disturbance areas and permanent aboveground facilities, to minimize the spread of noxious weeds.

4.1 Prevention and Control Methods

The Applicant will implement noxious weed control measures in accordance with existing Kittitas County and Washington State Noxious Weed Control Board regulations and guidelines (Washington State Noxious Weed Control Board 2019). Control efforts will focus on areas with designated noxious weed species, as determined by the noxious weed survey. The Applicant will attempt to prevent the spread of new populations of noxious weeds. Class A species found on site will be eradicated. Existing Class B and C noxious weed populations located onsite will be managed to prevent further spread (RCW 17.10.140, Washington State Noxious Weed Control Board 2019).

- The Applicant will implement the following measures, as appropriate:
 - The general contractor will include a discussion of noxious weed environmental concerns and requirements, including weed identification, prevention, and control methods, during the Project's site orientation.
 - Qualified personnel, such as a Washington State Licensed Pesticide Applicator, should conduct onsite monitoring in the areas of noxious weed concern before and after construction and prescribe treatments for noxious weeds onsite.
 - All County-designated Class A and B noxious weed populations identified on the Project site will be pre-treated, and treatments along roads and high volume work areas will be prioritized to prevent spreading existing populations (UNCE, N.L).

At the end of each day, a visual inspection will be completed on all vehicles and equipment before leaving the Project site. If a vehicle or piece of equipment shows visual signs of potential noxious weeds, the vehicle will be cleaned in a designated area onsite before exiting the Project site.

Equipment and vehicles used to move vegetation and topsoil in noxious weed-infested areas during the clearing phases of the Project will be cleaned of seeds, roots, and rhizomes prior to being allowed to proceed to other areas of the Project site. In most infestation locations, vehicles will be cleaned using compressed air.

4.1.1 Topsoil Management and Re-seeding Methods

Direct and indirect impacts on vegetation at aboveground facilities will be permanent in nature and will result from the removal of vegetation and wildlife habitat through minor excavation and grading activities. There will be some trenching activities for the installation of underground wiring. These areas will be reseeded after backfilling. Other than noxious weed control measures and erosion and sediment control measures, revegetation will not be conducted at these sites.

Temporary construction impacts on vegetation and habitat within the Project site will be often limited to the flattening of vegetation by rubber-tired vehicles. In some instances, the topsoil and vegetation will be removed through minor grading and excavation. Such soil disturbances will require active measures to restore vegetation cover in a timely manner, control erosion, and prevent the establishment and spread of noxious weeds.

Soil preservation and preparation techniques, including topsoil management measures, shall be implemented immediately prior to, or at the start of, construction. Topsoil management and reseeded can decrease the spread of noxious weeds and make their populations more manageable.

The Applicant shall implement the following topsoil management measures:

- Minimize construction impacts within the Project site by, where practical and safe, limiting grading and clearing to avoid impacts on native soils and vegetation.
- Use proper soil management techniques, including topsoil stripping, stockpiling, and reapplying, to establish surface conditions that would enhance the development of diverse, stable, and self-generating plant communities.
- Re-seed disturbed areas as soon as possible after final construction disturbance in each area.
- Use certified weed-free seed during re-vegetation efforts obtained from a supplier approved by the State of Washington.

Crews should attempt to conduct all re-seeding during the spring or fall (wet season) to allow seeds to germinate and establish in these areas.

Seeds should be applied using either manual or mechanical methods, depending on factors such as the size of the area to be re-seeded and the risk for further disturbance due to the use of planting equipment.

Broadcast or drilling techniques should be employed where appropriate and feasible for the disturbance area.

Weed-free mulch may be applied as needed after seeding. Mulching can increase soil moisture retention and reduce the spread of weeds.

4.2 Treatment Methods

▪ If herbicide treatment is necessary, the Applicant will only use herbicides that are approved for use in the state of Washington by the U.S. Environmental Protection Agency and the Kittitas County Noxious Weed Control Board. The Applicant will apply herbicides to identified, treatable, noxious weed areas, as described below. If a weed population is deemed to be untreatable (e.g., too widespread and established in area to successfully control), the Applicant will implement all the measures discussed above, except treatment with herbicides. The Applicant will consider the timing of a weed's life cycle to determine effective treatments. Mechanical and herbicide treatments are more effective prior to seed production. Preventing weeds from setting seeds will decrease the seed bank for later seasons.

4.3 Construction Monitoring

During construction, qualified weed management personnel will conduct periodic monitoring of the Project site for noxious weeds. Any signs of new weed growth or re-growth in treated areas will be addressed promptly with herbicide or mechanical treatments.

The Applicant will maintain ongoing communication with individual landowners regarding noxious weeds within the Project site. Landowners may also contact the Applicant to report the presence of noxious weeds. The Applicant will control the weeds on a case-by-case basis.

4.4 Operations Weed Control Management

During regular operation of the Project, weeds along access roads and in between and around solar PV arrays will be controlled. To eliminate the potential for raptor prey species to use the space under solar arrays as forage and shelter, weeds and grasses will be kept to a minimum. Methods of vegetation control around the solar PV arrays will include herbicide treatments, mechanical removal, and other appropriate measures.

5 References

Kittitas County Noxious Weed Control Board. 2019. Laws. Accessed September 23, 2019.
<https://www.co.kittitas.wa.us/noxious-weeds/laws.aspx>.

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University of Nevada Cooperative Extension (UNCE). N.L. Fact Sheet FS-03-59: Measures to Prevent the Spread of Noxious and Invasive Weeds During Construction Activities. <https://www.unce.unr.edu/publications/files/nr/2003/FS0359.pdf>

Washington State Noxious Weed Control Board. 2019. Publications. Full Circle: control noxious weeds, grow healthy plant communities, and support bees and other pollinators. Accessed September 24, 2019. <https://www.nwcb.wa.gov/publications>.

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Washington State Legislation. 1995. Title 17, Chapter 17.10. Accessed September 24, 2019. <https://app.leg.wa.gov/RCW/default.aspx?cite=17.10.010>. Washington State Legislation. 1995. Title 17, Chapter 17.10.140. Accessed October 14, 2019. <https://app.leg.wa.gov/RCW/default.aspx?cite=17.10.140>




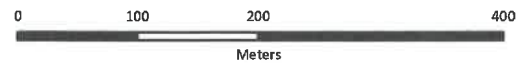
 Site Location  Stream

Figure 1.
Westside Solar Project Area



Kittitas County, Washington
September 2019







-  Noxious Weeds
-  Site Location

Figure 2.
Westside Solar Noxious Weeds



Kittitas County, Washington
September 2019

